

Wavelength

Standard	632.8 nm
Optional	1152.3 nm
	3391.2 nm

Output power at 632.8 nm

Confocal Resonator (Multiphase Mode)

8 mW

Hemispherical Resonator (Uniphase Mode)

4 mW

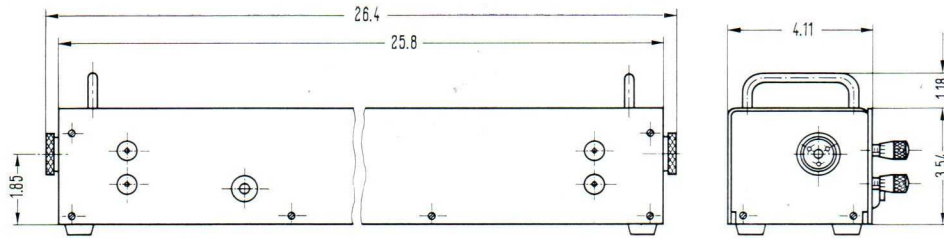
Beam Diameter

2.5 mm

Beam Divergence at uniphase mode
with collimating output reflector

2' 0.6 millirad)

Helium-Neon-Laser LG 64



Design and Application

The He-Ne-Laser produces a continuous beam of high spectral purity. It serves as a source of coherent light for investigations in many fields of science and research, for use in technical colleges and universities to demonstrate and explain some of the principles and phenomena of optics and also in communication and data transmission systems.

Optical Resonator

The reflectors are located in mounts and may be interchanged quickly and easily. They have durable, low-loss, multilayer dielectric coatings.

The standard equipment includes two concave-convex reflectors which are designed for optimal divergence of the laser beam (collimating reflector). The arrangement of these reflectors is quasi-confocal.

By replacing one of the collimating reflectors with a plane reflector a hemispherical resonator is formed to produce the uniphase TEM₀₀ mode. The mounted reflectors are factory adjusted. Four micrometer screw gages provide the adjustment for max. output power. This is uncritical compared with the usual method of adjustment and simplifies the operation of the laser.

Laser Tube

The gas-discharge is d.c. excited. The tube has an oxide cathode with $E_f = 3$ V and $I_f = 4$ A, preheating time about 1 minute. Operating voltage between anode and cathode is about 2 kV at a current of 15 mA. The push-button "Start" initiates gas discharge.

For further information please contact
Werk für Röhren, 8 München 8, St. Martinstr. 76

Power supply

A high voltage power supply provides heater, anode and starting voltages and is connected to the laser by a cable and h. t. plug. The max. output power of the laser can be adjusted by continuous variation of discharge current, this current being monitored on a meter.

The power supply unit can be operated from mains voltages of 117, 127, 220 and 240 Vac, 48 . . . 62 Hz.

Mechanical Data

Laser	Dimensions	4 ³ / ₄ " x 5 ¹ / ₈ " x 26 ¹ / ₇ "
	Weight	11 lbs.
	Operating position	any, standard bolts permit optical bench mounting
Power supply connecting cable	Dimensions	approx. 39"
	Weight	14 ³ / ₈ " x 7 ¹ / ₂ " x 7 ³ / ₈ " 28 lbs.

Designation for ordering

Laser	Model LG 64	
	including parts	
	Laser unit	LGG 64
	gas discharge tube	LGR 64
	reflector for multiphase mode operation	LGS 6 KK 7-2 LGS 6 KK 7-0.2
	reflector for uniphase mode operation	LGS 6 PL -0.2
Power supply	Model LGN 64	
accessories		
	reflector for 1152.3 nm	LGS 11 KK 7-5 LGS 11 KK 7-0.2
	reflector for 3391.2 nm	LGS 33 KK 7-20
	test adapter (for output power)	LGP 64